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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/648,329

08/27/2003

Sung-Ro Go

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EXAMINER

GIESY, ADAM

ART UNIT

PAPER NUMBER

2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/648,329

Applicant(s)

GO, SUNG-RO

Examiner

Adam R. Giesy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 8-11, 14-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-11, 14-17 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. The Examiner, upon further consideration, hereby withdraws the finality of the last Office Action, mailed on 12/07/2006. Accordingly the indication of allowable subject matter is also withdrawn.

The claims that were submitted on 9/21/2006 will now be prosecuted in light of the withdrawal of the last Final Office Action as stated above.

### ***Claim Objections***

2. Claims 9, 10, and 15 are objected to because of the following informalities:

Examiner asserts that line 9 of claim 9 should read – ...recording processing unit; -- instead of "...recording processing unit".

Claim 10, as submitted in the amendment received on 9/21/2006, does not recite any limitations. Since the claim is labeled as "Original" in the amendment, the Examiner will read claim 10 as it is recited in the original claim filing on 8/27/2003.

Examiner asserts that line 7 of claim 15 should read – ...data on the disc; and -- instead of "...data on the disc".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 9-11, 15, 16, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Tamaru et al. (hereinafter Tamaru – US Pat. No. 6,894,967 B2).

Regarding claim 1, Tamaru discloses a disc drive which records data on a disc, the disc drive comprising: a clock generator which generates a clock signal that is synchronized with a transmission speed of a received signal (Figure 3, elements 104 and 106; see also column 11, line 65 thru column 12, line 7); a pickup unit which records recording data corresponding to the received signal on the disc (Figure 3, element 103; see also column 12, lines 16-19); a recording processing unit which converts the received signal into the recording data by synchronizing with a clock signal generated from the clock generator into recording data and provides the converted recording data to the pickup unit (Figure 3, elements 109 and 110); a spindle motor which rotates the disc (element 102); a spindle motor driving unit which controls a rotation speed of the spindle motor by using the clock signal generated from the clock generator (Figure 3, elements 104 and 107; see also column 11, line 67 thru column 12, line 4).

Regarding claim 2, Tamaru discloses all of the limitations of claim 1 as discussed in the claim 1 rejection above and further that the disc drive further comprises a decoder which detects an identifying signal indicating a transmission speed of the received signal (Figure 3, element 104 – note that the frequency of the wobble signal will vary dependent upon the recording/reproducing speed, therefore the wobble can inherently

by used to determine transmission speed), provides the detected identifying signal to the clock generator (see Figure 3, element 104 – the wobble signal is inputted into element 104), transmits the received signal to the recording processing unit, and the clock generator generates the clock signal that is synchronized with the identifying signal (Figure 3, element 104 – note that element 104 produces a secondary ATIP-CLK signal as seen in Figure 3 which is synchronized with the ATIP and wobble signals).

Regarding claim 3, Tamaru discloses all of the limitations of claim 2 as discussed in the claim 2 rejection above and further that the identifying signal is a periodic signal (see column 11, lines 59-61 – note that the identifying signal is read on by the wobble signal since the wobble signal is periodic).

Regarding claim 4, Tamaru discloses all of the limitations of claim 1 as discussed in the claim 1 rejection above and further that the recording processing unit comprises an encoder which encodes the received signal (Figure 3, elements 109 and 110; see also column 12, lines 12-14).

Regarding claim 5, Tamaru discloses all of the limitations of claim 1 as discussed in the claim 1 rejection above and further that the clock generator comprises a phase locked loop circuit (element 104 produces a secondary ATIP-CLK signal as seen in Figure 3; element 104 is also comprised of a PLL circuit as displayed in Figure 3).

Regarding claim 9, Tamaru discloses a disc drive which records data on a disc, the disc drive comprising: a pickup unit which records recording data corresponding to a received signal on the disc (Figure 3, element 103); a recording processing unit which converts the received signal into the recording data by synchronizing with a

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transmission speed of the received signal and provides the recording data to the pickup unit (elements 109 and 110); a decoder which detects an identifying signal capable of indicating the transmission speed of the received signal and transmits the identifying signal to the recording processing unit (104); a spindle motor which rotates the disc (102); and a spindle motor driving unit which controls a rotation speed of the spindle motor by synchronizing with the identifying signal (elements 104 and 107; see also column 11, line 67 thru column 12, line 4).

Regarding claim 10, Tamaru discloses all of the limitations of claim 9 as discussed in the claim 9 rejection above and further that the disc drive further comprises a decoder which detects an identifying signal capable of indicating the transmission speed of the received signal and transmits the identifying signal to the recording processing unit (see column 12, lines 5-19).

Regarding claim 11, Tamaru discloses all of the limitations of claim 10 as discussed in the claim 10 rejection above and further that the identifying signal is a periodic signal (see column 11, lines 59-61 – note that the identifying signal is read on by the wobble signal since the wobble signal is periodic).

Regarding claim 15, Tamaru discloses a method of controlling a recording speed of a disc drive capable of recording data on a disc, comprising: generating a clock signal that is synchronized with a transmission speed of a received signal (see column 11, line 65 thru column 12, line 7); converting the received signal into recording data that is to be recorded on the disc by synchronizing with the clock signal (see column 12, lines 8-19); recording the converted recording data on the disc (see column 12, lines 16-19);

and controlling a rotation speed of a spindle motor that rotates the disc by synchronizing with the clock signal (see column 11, line 67 thru column 12, line 4).

Regarding claim 16, Tamaru discloses all of the limitations of claim 15 as discussed in the claim 15 rejection above and further that the generating the clock signal comprises: detecting an identifying signal capable of indicating the transmission speed of the received signal (Figure 3, element 104 – note that the frequency of the wobble signal will vary dependent upon the recording/reproducing speed, therefore the wobble can inherently be used to determine transmission speed); and generating a clock signal that is synchronized with the identifying signal (Figure 3, element 104 – note that element 104 produces a secondary ATIP-CLK signal as seen in Figure 3 which is synchronized with the ATIP and wobble signals).

Regarding claim 17, Tamaru discloses all of the limitations of claim 16 as discussed in the claim 16 rejection above and further that the identifying signal is a periodic signal (see column 11, lines 59-61 – note that the identifying signal is read on by the wobble signal since the wobble signal is periodic).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 8, 14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaru et al. (hereinafter Tamaru – US Pat. No. 6,894,967 B2) in view of Sato (US Pat. No. 5,289,448).

Regarding claims 8, 14, and 19, Tamaru discloses all of the limitations of claims 1, 9 and 15 as discussed in the claim 1, 9, and 15 rejections above. Tamaru does not disclose a channel receiver without an additional medium between the disc drive and the receiver.

Sato discloses a timing circuit for a recording medium that uses an input composite video signal input into a Vsync separator (read as channel receiver – Figure 1, element 22) combined with a clock sync signal (from sync clock element 24) in order to determine the spindle motor (12) speed wherein there is no medium between the Vsync separator and the disc drive.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the real-time recording disc drive as disclosed by Tamaru with the spindle motor timing circuit that uses an input from a channel receiver and has no additional medium between the receiver and the disc drive as disclosed by Sato, the motivation being to obtain a real-time video capture device that sync to any one of the video signal sub-frequencies.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1, 9, and 15 have been considered but are moot in view of the new ground(s) of rejection.



**Conclusion**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Yokota et al. (US Pat. No. 5,671,201) discloses an apparatus for reproducing optical discs wherein a PLL circuit is used to create a reference clock signal to control the speed of a spindle motor.

b. Aoshima (US Pat. No. 5,663,941) discloses that the frequency of the wobble signal is indicative of a transmission speed.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam R. Giesy whose telephone number is (571) 272-7555. The examiner can normally be reached on 8:00am- 5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ARG 2/20/2007

  
**TAN DINH**  
**PRIMARY EXAMINER**

2/26/07